

Amendment to the Claims

Claim 1 (Currently amended): A pole and base for holding an array of pre-aimed, high intensity light fixtures in an elevated position comprising:

a unitary base having comprising a single, elongated piece, a length of greater than about 8 feet and structural characteristics to support a pole and array of light fixtures thirty feet or higher above ground, and including a lower section comprising a majority of the length of the base adapted for insertion into the ground and an upper section adapted to extend above the ground when the base is inserted in the ground and having a taper of about 0.12 to 0.16 inch per foot;

a pole having comprising a length of around 30 feet or greater, a relatively thin wall, and at least one structural characteristic different from the base, and adapted for mateable slip-fitting over at least a substantial portion of the upper section of the base, an upper end, a lower open end, and an interior bore extending axially and inwardly from the lower open end, the interior bore having an inside diameter and taper generally matching the outside diameter of the upper section of the base, the length of the pole being substantially longer than the length of the base;

one or more cross arms attached at or near the upper end;

an array of pre-aimed light fixtures mounted to said one or more cross arms;

one or more connection members adapted to connect the said one or more cross arms to the pole;

and

the upper section of the base adapted to position the lower open end of the pole, when slip-fitted onto the base, at least one foot[[,]] above the ground but substantially nearer the ground

than to the upper end of the pole when the pole is installed in operative position on the base and the lower section of the base is in operative position in the ground.

Claim 2 (Previously presented): The pole and base of claim 1 wherein the base is made from concrete.

Claim 3 (Previously presented): The pole and base of claim 2 wherein the base is made from hollowed concrete.

Claim 4 (Previously presented): The pole and base of claim 1 wherein the base includes a cylindrically shaped lower portion.

Claim 5 (Previously presented): The pole and base of claim 1 wherein the base includes a frusto-conically shaped upper section.

Claim 6 (Previously presented): The pole and base of claim 1 wherein the upper section of the base is tapered and said portion for positioning comprises the tapered upper section to co-act with a generally matching tapered interior bore of the pole.

Claim 7 (Previously presented): The pole and base of claim 1 wherein the upper section of the base is tapered at 0.14 inches across the diameter of the base per foot in height.

Claim 8 (Previously presented): The pole and base of claim 1 wherein the upper section of the base is a plurality of feet above ground.

Claim 9 (Withdrawn): The pole means of claim 1 wherein the upper section of the base means has generally straight sided sidewalls, and the pole section means has a matching generally straight sided interior bore, the means for positioning including a stop member means positioned on said base means which limits the distance the pole section means can slip fit onto the base means.

Claim 10 (Previously presented): The pole and base of claim 1 wherein width and length of the base is related to required strength, height, and weight of the pole and structure attached to the pole.

Claim 11 (Previously presented): The pole and base of claim 1 wherein the pole is made from metal.

Claim 12 (Previously presented): The pole and base of claim 1 wherein the pole is hollow.

Claim 13 (Previously presented): The pole and base of claim 1 wherein the pole is tapered along its entire length.

Claim 14 (Previously presented): The pole and base of claim 13 wherein the pole has an elongated frusto-conical shape.

Claim 15 (Previously presented): The pole and base of claim 13 wherein the taper is approximately 0.14 inches in diameter per foot of length.

Claim 16 (Previously presented): The pole and base of claim 1 wherein the interior bore is slightly larger than the outside diameter of the upper section of the base .

Claim 17 (Previously presented): The pole and base of claim 1 wherein the slip fit between the base and pole locks the pole in place by resilient and frictional locking.

Claim 18 (Previously presented): The pole and base of Claim 1 wherein the pole comprises a plurality of pole sections , a lowermost pole section being slip fittable over the upper section of the base , additional pole sections slip fittable, in succession, sequentially on a preceding pole section .

Claim 19 (Previously presented): The pole and base of claim 1 wherein the pole includes mounting upon which can be connected the array to be elevated.

Claim 20 (Withdrawn): The pole means of claim 1 further comprising openings in the base means and pole section means to allow access to the interior of the base means and pole section means.

Claim 21 (Currently amended): A method of rigidly suspending an array of pre-aimed, high intensity light fixtures in an elevated position comprising the steps of:

forming an upper section in a unitary base having comprising a single, elongated piece a length of greater than about 8 feet, and structural characteristics to support a pole and array of light fixtures thirty feet or higher above ground, and a lower section comprising a majority of the length of the base which is adapted to be mounted in the ground and having a taper of about 0.12 to 0.16 inch per foot;

positioning the upper section of the base above the ground when the base is mounted in the ground;

forming in a bottom portion of a relatively thin walled pole having comprising a substantial portion of a length of around 30 feet or greater and a structural characteristic different from the base, a bore mateably slip fittable over the upper section of the base, the length of the pole being substantially longer than the length of the base;

attaching to the pole an array of pre-aimed light fixtures mounted on one or more cross arms; slip fitting the pole to the base so that the lower portion of the pole is at least one foot above but nearer the ground than the top of the pole when the pole is installed in operative position on the base.

Claim 22 (Withdrawn): The method of claim 21 further comprising positioning a stop on one of the base and pole for determining the distance upon which the pole slip fits over the base.

Claim 23 (Previously presented): The method of claim 21 wherein the bore of the pole slips over the upper section of the base to mount the pole to the base .

Claim 24 (Previously presented): The method of claim 21 wherein the upper section of the base is tapered and the bore in the pole is tapered to mateably match.

Claim 25 (Previously presented): The method of claim 21 wherein the base is made of reinforced concrete.

Claim 26 (Previously presented): The method of claim 21 wherein the pole is made of tubular metal.

Claim 27 (Previously presented): The method of claim 21 comprising the step of matching the diameters and lengths of the base and pole according to pre-determined, required strength, height, and weight of the pole and the array.

Claim 28 (Previously presented): The method of claim 21 wherein the pole comprises one or more pole sections each having a bore in a bottom portion so that each pole section can be sequentially slip fit to a preceding pole section.

Claim 29 (Withdrawn): The method of claim 21 comprising the further step of slip fitting a first pole section to the base means, slip fitting any further pole section to a preceding pole section to preassemble one or more pole sections and the base means; grasping the preassembled combination at approximately at or above the center of gravity; moving the base means into a previously excavated hole in the ground; bringing the preassembled combination to a generally upright position;

adjusting the preassembled combination to plumb the preassembled combination; and
filling the excavated hole to secure the preassembled combination in the plumb position.

Claim 30 (Previously presented): The method of claim 21 further comprising the steps of:
moving the base to a pre-excavated hole in the ground; adjusting the base so that it is generally
plumb; filling the remaining areas of the excavated hole with material to secure the base in the
hole; and slip fitting said pole to the base .

Claim 31 (Previously presented): The method of claim 21 further comprising the steps of:
moving the base to a pre-excavated hole in the ground;
adjusting the base so that it is generally plumb;
filling the remaining areas of the excavated hole with material to secure the base in the hole; and
slip fitting a pole to the base .

Claim 32 (Withdrawn): The method of claim 30 wherein the base means is moved to the
excavated hole by fixing a carrying strap through a bore in the center of the base means and by a
crane means lifting the base means and placing it into the excavated hole.

Claim 33 (Withdrawn): The method of claim 30 wherein the step of moving the base
means into the excavated hole comprises:
forming a bore laterally through the base means generally perpendicular to the longitudinal axis
of the base means;

slidably inserting an elongated bar through the bore, the bar having opposite ends which extend outwardly on each side of the base means;
grasping each end of the bar with a lifting and motive means; and
moving the base means over and into the excavated hole.

Claim 34 (Withdrawn): The method of claim 33 wherein the bar allows the base means to swing freely in a first plane so that the gravitational pull on the base means plumbs the base means in that plane.

Claim 35 (Withdrawn): The method of claim 34 further comprising first and second vertical jack means each having a base which can be placed on the ground, and an upper end associated with the bar to raise and lower one side of the bar to level or plumb the base means.

Claim 36 (Withdrawn): The method of claim 35 wherein the jack means comprises an upper end having a v shape to receive the bar.

Claim 37 (Withdrawn): The method of claim 35 wherein the jack means includes a vertically extending elongated member which slidably passes through a vertical bore in the bar means.

Claim 38 (Withdrawn): The method of claim 34 further comprising a second bar means extending through a bore laterally through and generally perpendicular to the longitudinal axis of

the base means, second bar means being adaptable to receive a jack means at opposite ends to fix the base means in a plumb position.

Claim 39 (Withdrawn): The method of claim 34 further comprising a second bar means extending through a bore generally perpendicular to the longitudinal axis of and laterally through the base means, and generally perpendicular to the first bore, the first and second bores having an intersection location whereby the diameter of the first and second bores overlap at least in part so that the second bar abuts against the first bar to provide a balance point for the base means, the balance point containing all the weight of the base means at generally a small abutment of curved surfaces of the first and second bars to provide a self plumbing device.

Claim 40 (Withdrawn): The method of claim 34 further comprising a sleeve having an inside diameter greater than the outside diameter of the first bar and surrounding the first bar, the sleeve including generally at its mid-section generally coincident with the longitudinal axis of the base means one or more balance nodes extending inwardly towards the longitudinal axis of the sleeve and onto which the first bar would abut, the balance nodes providing generally most of the gravitational pull for the base means at that general location to provide a self plumbing means for the base means.

Claim 41 (Withdrawn): The method of claim 30 wherein the base means is plumbed by utilizing a level means.

Claim 42 (Withdrawn): The method of claim 41 wherein the level means comprises an elongated level having first and second ends, one of said first and second ends having attached to it an extensive member, the extension member having a transfer link from the level means selected so that the angle formed between a line from the other of said ends of the level to the outer extended end of the extension member, in comparison with the edge of the level would be equal to the angle formed by a taper in the upper section of the base means.

Claim 43 (Currently amended): A method of rigidly suspending an array of pre-aimed high intensity light fixtures mounted on one or more cross arms in an elevated position comprising: determining the structural requirements of a pole of over thirty feet tall by considering one or more of the set comprised of height, weight, and distribution of the array; determining the structural requirements of a unitary base having comprising a single, elongated piece, and a length substantially shorter than the pole to support the pole by considering one or more of the structural requirements of the pole, type of ground, type of mounting of the base in the ground, and stresses at or around the base when installed in the ground; selecting a configuration for the pole from one or more of the set comprised of structural requirements of the pole different than the base, number of sections of the pole, shape of each section, length of each section, largest diameter of each section, sheet thickness and gauge of each section, steel tensile strength of each section, type of steel of each section; selecting a configuration of the base from one or more of the set comprising structural requirement of the base, configuration of the pole, diameter of the base, amount of the base covered by the pole when connected; and

constructing a pole having a lower end and an upper end according to the selected configuration of the pole;

constructing a base having a lower section and an upper section according to the selected configuration of the base;

fixing the array to the pole ;

installing the lower section of the base in the ground with the upper section extended above the ground;

slip fitting the lower end of the pole to the upper section of the base so that the lower end of the pole is held above the ground but nearer the ground than the upper end of the pole.

Claim 44 (Currently amended): A system for rigidly elevating an array of pre-aimed high intensity light fixtures mounted on one or more cross arms at a site comprising:

at least one ~~unitary~~ base comprising a single, elongated piece having a lower section installed below ground in a desired predetermined location at the site;

each base having a length and structural characteristics, and an upper section which extends above ground when the lower section of the base is installed in the ground;

a pole for each base, the pole having a length of 30 feet or greater and a structural characteristic different from the base for suspending an array of light fixtures to a desired height, each pole having a hollow lower end and an upper end, the lower end of the pole adapted to be slip fittable over the upper section of a base but maintain the lower end of the pole above the ground but nearer the ground than the top of the pole;

a connection adapted to mount an array to a pole.

Claim 45 (Previously presented): The system of claim further comprises a lock to lock the pole to the base, the lock comprising a substance coated on one of the upper section of the base and the lower end of the pole.